

## PATENT COOPERATION TREATY

PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY



(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 01 JUN 2006

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Applicant's or agent's file reference RSJ08100WO		<b>FOR FURTHER ACTION</b> See Form PCT/PEAA416	
International application No. PCT/GB2005/001640		International filing date (day/month/year) 29.04.2005	Priority date (day/month/year) 04.05.2004
International Patent Classification (IPC) or national classification and IPC INV. G07D7/00			
Applicant DE LA RUE INTERNATIONAL LIMITED			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand  22.02.2006		Date of completion of this report  26.05.2006	
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized officer  Espuela, V  Telephone No. +31 70 340-3272  	

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2005/001640

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3(a) and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4(a))
  - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-13 as originally filed

**Claims, Numbers**

10-19 as originally filed  
1-9, 20-36 filed with telefax on 22.02.2006

**Drawings, Sheets**

1/1 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing *(specify):*
- ☐ any table(s) related to sequence listing *(specify):*

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing *(specify):*
- ☐ any table(s) related to sequence listing *(specify):*

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-36
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-36
Industrial applicability (IA)	Yes: Claims	1-36
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following document:

D1: WO 02/059840 A (HEITSCH, WOLFGANG; PRIEBE, GERD; LIPPERT,  
GUNTHER) 1 August 2002 (2002-08-01)

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-36 does not involve an inventive step in the sense of Article 33(3) PCT.

**2.1 INDEPENDENT CLAIMS 1, 22, 23**

Independent claim 1 reads: 'A method of forming an optical decoding device to enable hidden information or indicia on an article to be revealed, the method comprising electronically transferring data defining the decoding device from a central source to a remote site, and creating the optical decoding device at the remote site using the transmitted data.'

Document D1 discloses an information device (cell phone) with an accessory device for testing security features in documents, the accessory device using software that is updated via a SMS (short message service) received from the network. The software update is used when the user needs to authenticate a different valuable than the one allowed with the current software (page 6, lines 6-20; figure 1).

Document D1 discloses thus a decoding device composed of two different parts, a physical and a logical part, the physical part being the accessory device while the logical/controlling part is the software detecting the security features of the article to be authenticated. It is understood that the decoding device of document D1 changes every time that a new valuable must be verified, the changes to be made (the software update) being received from the network the information device is attached to.

The decoding device disclosed in D1 can also be optical, comprising a set of illumination assemblies, like lasers, diodes, CCD cameras or lenses, as disclosed in the examples 5 and 6 (D1, page 9, lines 1-24).

Therefore, the method to create an optical decoding device disclosed in document D1 is an equivalent method to that claimed in claim 1, both optical decoding devices being adapted to the particular features of the valuable to be authenticated, the subject-matter of claim 1 thus lacking inventive step in the sense of Article 33(3) PCT.

2.2 Analogously to claim 1, the subject-matter of claims 22, 23 does not involve an inventive step in the sense of Article 33(3) PCT.

### 2.3 INDEPENDENT CLAIMS 29, 35

Claims 29 and 35 claim a decoding device system comprising a central source to provide data defining the decoding device, a transmission system and a creation system at a remote site for creating the decoding device, the decoding device being an optical decoding device in the case of claim 29.

As explained in point 2.1 above with respect to claims 1, 22, 23, document D1 (page 6, lines 6-20; figure 1) discloses a system where the decoding device is attached to a cell phone, this cell phone receiving software updates for the decoding device via SMS (short message service) from the network.

The creation of the decoding device in document D1 is made by downloading new software to the existing accessory device, this new software modifying the functionality of said existing device, and making it work as a different decoding device.

When having a (mobile) network it is implicitly disclosed the existence of at least one central server controlling the said network.

As also explained in point 2.1 above, the decoding device disclosed in D1 can also be optical (D1, page 9, lines 1-24).

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(SEPARATE SHEET)**

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Therefore, the subject-matter of claims 29, 35 lacks inventive step in the sense of Article 33(3) PCT.

- 2.4 Dependent claims 2-21, 24-28, 30-34, 36 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, the subject-matter of claims 2-21, 24-28, 30-34, 36 thus not being inventive (Article 33(3) PCT).

**Re Item VIII**

**Certain observations on the international application**

Claims 1, 23 lack the features of selecting the document to be authenticated and the central source transmitting the information containing the security features for that document. Without those features it is not clear how the central source is indicated what information to transmit to the remote site and how it is done, claims 1 and 23 thus lacking clarity in the sense of Article 6 PCT.

CLAIMS

1. A method of forming an optical decoding device to enable hidden information or indicia on an article to be revealed, the method comprising electronically transferring data defining the decoding device from a central source to a remote site, and creating the optical decoding device at the remote site using the transmitted data.
2. A method according to claim 1, wherein the article comprises an article of value such as a document, for example selected from the group of banknotes, fiscal stamps, certificates of authenticity, cheques, bonds, retail vouchers, postage stamps, passports, identity documents, and travellers cheques.
3. A method according to claim 1 or claim 2, wherein the central source comprises a database.
4. A method according to any of the preceding claims, wherein the data defines one or more of the colour or black and white content of a decoding image, a line structure, or a 3-D structure.
5. A method according to claim 4, wherein the data defines the colour or black and white content of the decoding device in the form of pixel data or vector data.
6. A method according to any of the preceding claims, wherein the decoding device comprises one or more of an optical filter, a line or dot pattern, coloured filter, curved line structure, concentric circles, geometric figures, microlens arrays, lenticular screens, lenses and Fresnel lenses.
7. A method according to any of the preceding claims, wherein the step of creating the decoding device comprises printing, engraving or ablating the decoding device on a record medium.
8. A method according to claim 7, wherein the record medium comprises paper or plastic.
9. A method according to claim 7 or claim 8, wherein the record medium is transparent.

defining decoding devices corresponding to different levels of security.

20. A method according to claim 19, wherein the level of security of the transferred decoding device is determined in accordance with the identity of the remote site.

21. A method according to any of the preceding claims, further comprising recording details of the identity of a user at a remote site requesting data from the central source.

22. An optical decoding device which has been formed by a method according to any of claims 1 to 21.

23. A method of checking the validity of a security device on an article, the method comprising forming an optical decoding device at a remote site using data transferred electronically from a central source; and viewing the optical decoding device in association with the security device to validate the security device.

24. A method according to claim 23, wherein the article comprises an article of value such as a document, for example selected from the group of banknotes, fiscal stamps, certificates of authenticity, cheques, bonds, retail vouchers, postage stamps, passports, identity documents, and travellers cheques.

25. A method according to claim 23 or claim 24, wherein the security device comprises a hidden code not readily visible to the naked eye.

26. A method according to any of claims 23 to 25, wherein the security device comprises one or more of an array of dots, scrambled indicia, line pattern and metameric feature.

27. A method according to any of claims 23 to 26, wherein the decoding device is formed on a transparent substrate and is placed over the security device to validate it.

28. A method according to any of claims 23 to 27, wherein the forming step is carried out in accordance with any of claims 1 to 21.



29. An optical decoding device forming system comprising a central source for providing data defining an optical decoding device to enable hidden information or indicia on an article to be revealed; a transmission system for  
5 transmitting data from the central source to a remote site; and a creation system at the remote site for creating the optical decoding device using the transmitted data.

30. A system according to claim 29, wherein the creation system comprises one of an ink jet printer, laser printer,  
10 3D ink jet printing device, laser engraver, laser marker, laser ablating device, laser cutter, fax machine, commercial ink jet, digital press, conventional press or computer operated machine or a display screen, such as a high resolution display screen, monitor or high intensity  
15 display.

31. A system according to claim 29 or claim 30, wherein the central source comprises a database.

32. A system according to any of claims 29 to 31, further comprising a processor located at the central source for  
20 controlling access to data in the central source.

33. A system according to any of claims 29 to 32, wherein the decoding device comprises an image or indicia which, when viewed in association with a security device, reveals hidden information or indicia within the security device.

25 34. A system according to any of claims 29 to 33, adapted to carry out a method according to any of claims 1 to 21.

35. A decoding device supply system comprising a central source for supplying data defining a decoding device to enable hidden information or indicia on an article to be  
30 revealed, to one or more remote sites.

36. A system according to claim 35, wherein the central source comprises a database.